

Research Progress Report

Program: VDACS – Specialty Agriculture Research Grant – FY07

Project Title: Evaluation of Cultivars and protected Culture in Cherries

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Project Description:

Cherry production in Virginia represents a high value agricultural product in terms of profitability and human health. Average profit per acre can be as high as \$10,000. However, currently, only a few commercial (maintaining 100 or more trees) cherry growers operate in Virginia, and the crop is primarily marketed on-farm via pick-your-own and farm stands as well as in local farmer' markets. A lot of apple and peach growers are willing to grow cherries due to their high value, but expansion of the industry is limited by spring frost, birds, and rain-induced fruit cracking just before harvest. For some cherry varieties in some years, as much as 90% of the fruit may crack.

To assist prospective and current Virginia growers in maximizing market potential, new cultivars and alternative cultural systems that can overcome rain-induced fruit cracking, spring frost and birds are desirable. Growing cherries in high tunnels is becoming popular in the west coast and Michigan because of the advantages associated with cleaner and earlier fruit and higher marketable yields. The success of this project would likely increase production of cherries across the state and subsequently increase grower profitability and availability of fresh local fruit to consumers.

The purpose of this research is to introduce and evaluate fruit cracking-resistant cherry cultivars in field, and study protected culture of cherries to overcome rain-induced fruit cracking and spring frost to produce high yields and quality cherries using unheated, protected culture systems (high tunnels, hoop houses).

Progress to Date

Experiments are being conducted at the AHS Jr. AREC in Winchester, Virginia. For cultivar evaluation experiments, eight cultivars with good resistance to rain and high fruit quality such as Regina, Benton, Skeena, Selah, Sandra Rose, Sweetheart, Lapin, and Rainier, have been planted in the field in early April, 2007 and are being evaluated. In order to control cherry tree size and increase fruiting efficiency, root restrictive bags (fabric bags) and dwarfing rootstocks (G5 and G6) have been used. Ninety-six trees of eight cultivars have been randomly assigned into 6 blocks of 16 trees each. Eight trees from each block have been planted in root restrictive bags. In the future, 3 blocks of 16 trees each will be covered by high tunnels, and 3 blocks will be not covered by high tunnels and served as control. Vegetative growth such as shoot growth and annual trunk growth, flowering, yield, and fruit quality will be determined to evaluate cultivars and cultural systems.

